

ABSTRACT

A head (101) prints a predetermined test pattern under the control of a head control unit (204) in order to precisely
5 detect a head deviation when a head has been changed, the
printed test pattern is read by a sensor 110 and detected by a
pattern detector (209). Every time an interrupt signal
corresponding to the edge of a detected pattern element is input
to the CPU (203), a value of a main scanning counter (205)/main
10 scanning timer (207) (and/or a sub-scanning counter (206)/sub-
scanning timer (208)) is read, the printing position of each
pattern element is detected from the value, and the mounting
deviation of the head is calculated based on the detection
result of the printing position of each pattern element printed
15 by the head. The vertical bar of a test pattern may be printed
in multiple passes. A plurality of edges may be detected at
different longitudinal positions of the bar and the detected
results are averaged to determine an edge position.